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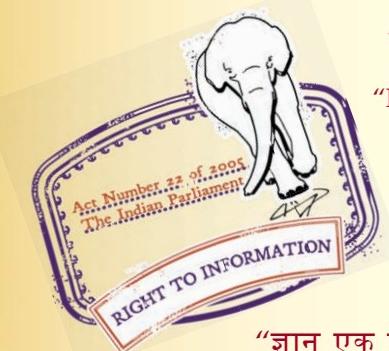
“Step Out From the Old to the New”

IS 10738-6-2 (1991): Flanges for Waveguides, Part 6:
Flanges for Square Waveguides, Section 2: Flange Type K
[LITD 6: Wires, Cables, Waveguides and Accessories]

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“Knowledge is such a treasure which cannot be stolen”



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भारतीय मानक
तरंग पथकों के फ्लैंजों की विशिष्टि

भाग 6 वर्गकार तरंग पथकों के लिये फ्लैंज
अनुभाग 2 फ्लैंज टाइप के

Indian Standard

SPECIFICATION FOR
FLANGES FOR WAVEGUIDES

PART 6 FLANGES FOR SQUARE WAVEGUIDES

Section 2 Flange Type K

UDC 621·372·831 : 621·372·829

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BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (Part 6/Sec 2) was adopted by the Bureau of Indian Standards, after the draft finalized by the Microwave Components and Accessories Sectional Committee had been approved by the Electronics and Telecommunication Division Council.

This standard (Part 6/Sec 2) shall be read in conjunction with IS 10738 (Part 1) : 1983, 'Flanges for waveguides: Part 1 General requirements and tests' and IS 10738 (Part 6/Sec 1) : 1991 'Flanges for waveguides: Part 6 Flanges for square waveguides, Section 1 General'.

Different types of waveguide flanges are being covered in a series of standards consisting of the following individual parts of IS 10738:

- Part 1 General requirements and tests
- Part 2 Flanges for ordinary rectangular waveguides
- Part 3 Flanges for flat rectangular waveguides
- Part 4 Flanges for flat circular waveguides
- Part 5 Flanges for medium flat rectangular waveguides
- Part 6 Flanges for square waveguides

This Part 6 of IS 10738 series is being issued in 2 Sections as follows:

- Section 1 General
- Section 2 Flange Type K

While preparing this standard assistance has been derived from IEC Pub 154-7 (1974) 'Flanges for waveguides : Part 7 Relevant specification for flanges for square waveguides', issued by the International Electrotechnical Commission (IEC).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

SPECIFICATION FOR FLANGES FOR WAVEGUIDES

PART 6 FLANGES FOR SQUARE WAVEGUIDES

Section 2 Flange Type K

1 SCOPE

This Indian Standard (Part 6/Sec 2) lays down dimensional requirements for flange Type K for square waveguides.

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

IS No.	Title
4493 (Part 6) : 1982	Hollow metallic waveguides : Part 6 Rigid square waveguides
10738 (Part 1) : 1983	Flanges for waveguides : Part 1 General requirements and tests
10738 (Part 6/Sec 1) : 1991	Flanges for waveguides : Part 6 Flanges for square waveguides, Section 1 General

3 CLIMATIC CATEGORIES

Provisions of 3 of IS 10738 (Part 1) : 1983 shall apply.

4 MATERIALS, CONSTRUCTION AND WORKMANSHIP

Provisions of 4 of IS 10738 (Part 1) : 1983 shall apply.

5 DESIGNATION OF FLANGES FOR WAVEGUIDES

Provisions of 5 of IS 10738 (Part 1) : 1983 shall apply.

6 MARKING

Provisions of 6 of IS 10738 (Part 1) : 1983 shall apply.

7 PACKING

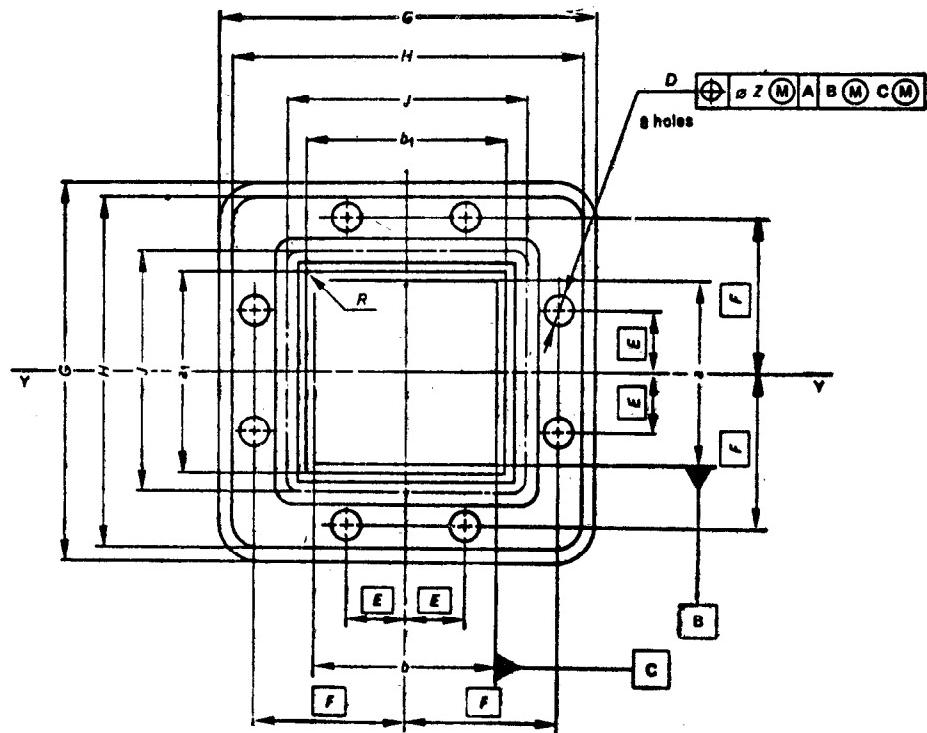
Provisions of 7 of IS 10738 (Part 1) : 1983 shall apply.

8 DIMENSIONAL REQUIREMENTS

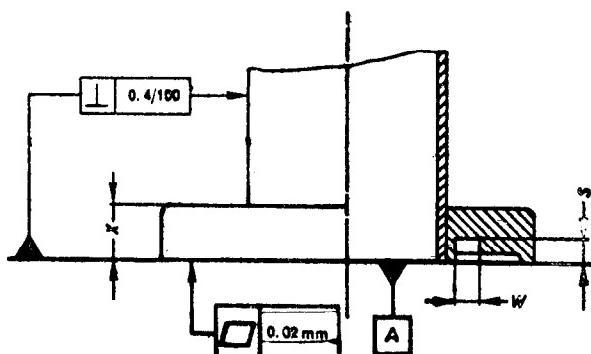
The outline and dimensions for pressurizable and unpressurizable Type K flanges shall be in accordance with Fig. 1 and Table 1.

9 TESTS

Provisions of 8 of IS 10738 (Part 6/Sec 1) : 1991 shall apply.



Front view



CROSS-SECTION Y-Y

FIG. 1 FLANGE TYPE K

Table 1 Dimensions of Type K Flanges for Square Waveguides
(Clause 8.1)

TYPE K FLANGES																							
Type Designation of Waveguide Flanges (IS : 10738)	To be Used with Waveguide	Locating Holes										Dimensions for Locating Bolts							Gasket Groove				
		Dia-meter D_{basic}	Fit	Deviation		$a_1 - b_1$	G	H	X	R_{\max}	$2E$	$2F$	$2Z$	Positional tolerance	Shank dia-meter basic	Deviation		J	Position				
				Lower	Upper											Lower	Upper						
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	All dimensions in millimetres.	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
3																							
41	Q41	6.350	B9	+0.150	+0.186	52.060	91.0	87.0	10.0	1.0	40.00	78.00	0.15	6.350	h8	-0.022	0	64.0					
49	Q49	6.350	B9	+0.150	+0.186	44.060	80.0	76.0	10.0	1.0	27.00	65.20	0.15	6.350	h8	-0.022	0	52.1					
54	Q54	5.000	B9	+0.140	+0.170	40.060	69.0	65.0	10.0	1.0	23.80	57.40	0.14	5.000	h8	-0.018	0	46.9					
61	Q61	5.000	B9	+0.140	+0.170	36.060	66.0	62.0	10.0	1.0	21.00	52.60	0.14	5.000	h8	-0.018	0	42.5					
65	Q65 ³	5.000	B9	+0.140	+0.170	34.060	65.0	61.0	10.0	1.0	24.00	51.00	0.14	5.000	h8	-0.018	0	42.0					
70	Q70	4.000	C9	-0.070	+0.100	31.250	59.0	55.0	7.5	0.8	19.80	47.60	0.07	4.000	h8	-0.018	0	38.0					
75	Q75	4.000	C9	+0.070	+0.100	29.250	57.0	53.0	7.5	0.8	19.00	45.60	0.07	4.000	h8	-0.018	0	36.0					
85	Q85	4.000	C9	+0.070	+0.100	26.25	54.0	50.0	7.5	0.8	17.60	42.60	0.07	4.000	h8	-0.018	0	33.0					
100	Q100	4.000	C9	-0.070	+0.100	22.75	50.0	46.0	7.5	0.8	16.20	39.20	0.07	4.000	h8	-0.018	0	29.5					
115	Q115	4.000	C9	+0.070	+0.100	19.54	47.0	43.0	7.5	0.65	15.00	36.00	0.07	4.000	h8	-0.018	0	26.3					
130	Q130	4.000	C9	-0.070	+0.100	17.54	45.0	41.0	7.5	0.50	14.00	34.00	0.07	4.000	h8	-0.018	0	24.3					

¹ See 8.3.11 of IS 10738 (Part 1) : 1983.

² These dimensions are not essential for the mating of two assemblies.

³ Not a preferred type.

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